A1-F18AA-TAC-300

PRELIMINARY

TACTICAL MANUAL POCKET GUIDE

NAVY MODEL F/TF-18A AIRCRAFT

PREPARED UNDER THE DIRECTION OF COMMANDER, OPERATIONAL TEST AND EVALUATION FORCE.

1 APRIL 1980

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AIR-TO-GROUND ATTACK PROCEDURES 2

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CHANGE 1 – 1 AUGUST 1980 (A1–F18AA–TAC–30A)

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LIST OF EFFECTIVE PAGES

NOTE: Text affected by current change indicated by vertical line in outer margin.

DATES OF ISSUE FOR ORIGINAL AND CHANGED PAGES ARE:

Original . . 0. . 1 Apr 80
Change . . 1. . 1 Aug 80

TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 32 CONSISTING OF THE FOLLOWING:

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* Title	1		
* A	1		
B	0		
C Blank	0		
i	0		
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* 18D Blank	1		
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\# Zero in this column indicates an original page.
* Asterisk indicates pages changed, added, or deleted by the current change.

URGENT CHANGE SUMMARY

The following Urgent Changes have been canceled or previously incorporated in this manual:

URGENT CHANGE NUMBER(S)	REMARKS/PURPOSE

The following Urgent Changes have been incorporated in this Change/Revision

URGENT CHANGE NUMBER	REMARKS/PURPOSE
1	7.25.84 RLP

Urgent Changes Outstanding — To be maintained by the custodian of this manual

URGENT CHANGE NUMBER	ORIGINATOR/DATE (or DATE/TIME GROUP)	PAGES AFFECTED	REMARKS/ PURPOSE

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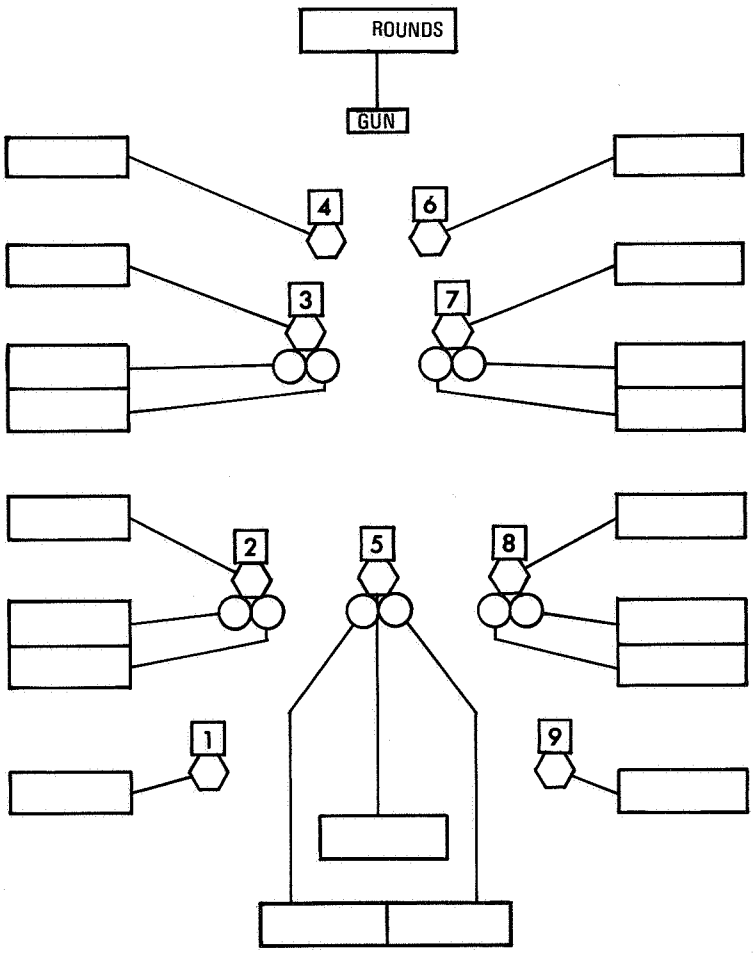
LOAD CONFIGURATION

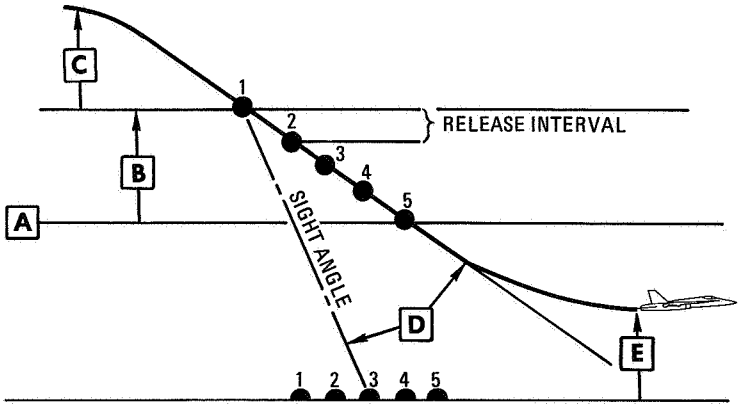
TOP VIEW

STATION NUMBER
SINGLE STORE/MISSILE
VER STORES



18AA-TAC-30-(1)

USING THE POCKET GUIDE



A GIVEN: Last bomb release height AGL of single/multiple release that assures frag and terrain clearance for a 4–G pullout.

B FIND: First bomb release height AGL for a multiple release; use aircraft down range travel and altitude loss charts for a multiple release.

C FIND: Roll–in height.

D GIVEN: Sight angle for one bomb is for single bomb on target; sight angle for multiple release is for reticle on target for first bomb release to place middle of stick on target.

E FIND: Recovery height; use dive recovery charts.

INFLIGHT PLANNING INDEX

SA = Applicable Pocket Guide Sight Angle Table

		Page
1. Sight angle	_____ mils	SA
SIGHT SETTING	[ ] mils	
2. Check minimum time-of-fall	_____ seconds	SA
3. Offset aim point _____ °	_____ feet	
4. Release height of last bomb	_____ feet	SA
5. Altitude loss during ripple . . . . . +	_____ feet	
6. Target elevation . . . . +	_____ feet	
7. FIRST BOMB INDICATED RELEASE HGT (MSL)	[ ] feet	
8. Roll-in:		
Height (MSL)	_____ feet	
Distance from target . .	_____ feet	
Speed	_____ knots	

TOP OF FRAG

5 SECONDS AFTER BURST

2.75-INCH ROCKET - MK 1 MOD 0 WARHEAD

20° impact angle	1,030 feet
30° impact angle	1,070 feet
40° impact angle	1,050 feet

2.75-INCH ROCKET - M151 WARHEAD

20° impact angle	730 feet
30° impact angle	700 feet
40° impact angle	650 feet

5.0-INCH ROCKET - MK 32 MOD 0 WARHEAD

20° impact angle	1,190 feet
30° impact angle	1,150 feet
40° impact angle	1,120 feet

7 SECONDS AFTER BURST

5.0-INCH ROCKET - MK 24/63 MOD 0 WARHEAD

20° impact angle	1,950 feet
30° impact angle	1,930 feet
40° impact angle	1,910 feet

9 SECONDS AFTER BURST

Bombs

MK 81 bomb.	2,470 feet
MK 82 bomb.	2,520 feet
MK 83 bomb.	2,820 feet

AIR-TO-GROUND ATTACK PROCEDURES

PREFLIGHT

1. Delivery parameters - PROGRAM

BEFORE ATTACK

1. A/G master mode - SELECT
2. Weapon - SELECT
3. "Hot gun" option - AS DESIRED

Bombs -

4. Delivery program - SELECT

Harm -

4. Delivery mode - SELECT

ATTACK

1. Master arm switch - ARM
2. A/G weapon - READY
   a. HUD weapon or mode legend - NOT X'ed
3. Target - DESIGNATE (if required/desired)

BOMBS

AUTO Mode

1. Velocity vector - ON ASL

2. Weapon release button - PRESS and HOLD
   a. Weapon release occurs when release cue coincides with velocity vector.

After last weapon release (flashing ASL) -

3. Weapon release button - RELEASE

TCA Mode

1. Steering reticle - ON TARGET (undesignated)

When release anticipation cue approaches reticle -

2. Weapon release button - PRESS and HOLD
   a. Weapon release occurs when anticipation cue coincides with reticle.

After last weapon release (flashing DIL) -

3. Weapon release button - RELEASE

CCIP Mode

1. DIL - ON TARGET

When target is coincident with CCIP cross -

2. Weapon release button - PRESS and HOLD

After last weapon release (flashing DIL) -

3. Weapon release button - RELEASE

MAN Mode

1. Depressed reticle - ON TARGET

When planned airspeed, altitude, and dive angle conditions are met -

2. Weapon release button - PRESS and HOLD

After last weapon release -

3. Weapon release button - RELEASE

GUN

CCIP Mode

1. Reticle - ON TARGET

When target range is less than maximum firing range -

2. Trigger - PULL TO SECOND DETENT (as required)

MAN Mode

1. Depressed reticle - ON TARGET

When target range equals desired firing range -

2. Trigger - PULL TO SECOND DETENT (as required)

ROCKETS

CCIP Mode

1. Reticle - ON TARGET

When target range is less than maximum firing range -

2. Weapon release button - PRESS

MAN Mode

1. Depressed reticle - ON TARGET

When target range equals desired firing range -

2. Weapon release button - PRESS

WALLEYE I

1. Reticle - ON TARGET
2. Video target gate - ON TARGET
3. Cage/uncage button - ACTUATE
   a. Weapon locks on target.

When weapon release conditions are satisfied -

4. Weapon release button - ACTUATE

WALLEYE I ER/DL (SINGLE AIRCRAFT OPERATION)

1. Data link pod - SELECT
2. Pod video - SELECT
3. Weapon seeker - UNCAGE
4. TDC - PRESS

5. Video target gate - SLEW TO TARGET
6. TDC - RELEASE
   a. Weapon locks on target.

When weapon release conditions are satisfied -

7. Weapon release button - ACTUATE
8. Aft antenna - SELECT (IF REQUIRED)
9. Target lockon - MONITOR

WALLEYE I ER/DL (DUAL AIRCRAFT OPERATION)

1. (Delivery aircraft) Walleye I ER/DL weapon - SELECT
2. (Controller) Walleye data link pod - SELECT

When ready for weapon lockon -

3. (Controller) PSI button - AS REQUIRED (PRE-BRIEFED)
4. (Delivery aircraft) Reticle - ON TARGET
5. (Delivery aircraft) Video target gate - ON TARGET
6. (Delivery aircraft) Cage/uncage button - ACTUATE
   a. Weapon locks on target.

When ready for weapon release -

7. (Controller) PSI button - AS REQUIRED (PRE-BRIEFED)
8. (Delivery aircraft) Weapon release button - ACTUATE
9. (Controller) Target lockon - MONITOR

MAVERICK

To slave Maverick to designated target -

1. Cage/uncage button - ACTUATE
   a. Maverick seeker automatically locks on target illuminated with correctly coded laser.

If target is not designated -

1. TDC - ASSIGN TO MAVERICK
2. TDC - PRESS
3. Maverick scan - SLEW AS DESIRED
4. TDC - RELEASE
   a. Maverick seeker automatically locks on target within scan illuminated with correctly coded laser.

When launch constraints and in range criteria have been met -

5. Weapon release button - ACTUATE

HARM

TOO Mode

To hand off priority target data to HARM-

1. Cage/uncage button - ACTUATE

When target is within launch range -

2. Weapon release button - ACTUATE

PB Mode

1. Target - DESIGNATE
2. Velocity vector - ON ASL

When release cue appears on HUD -

3. Weapon release button - PRESS
4. Initiate a pullup while maintaining velocity vector on ASL.
   a. Release occurs when release cue intersects velocity vector.

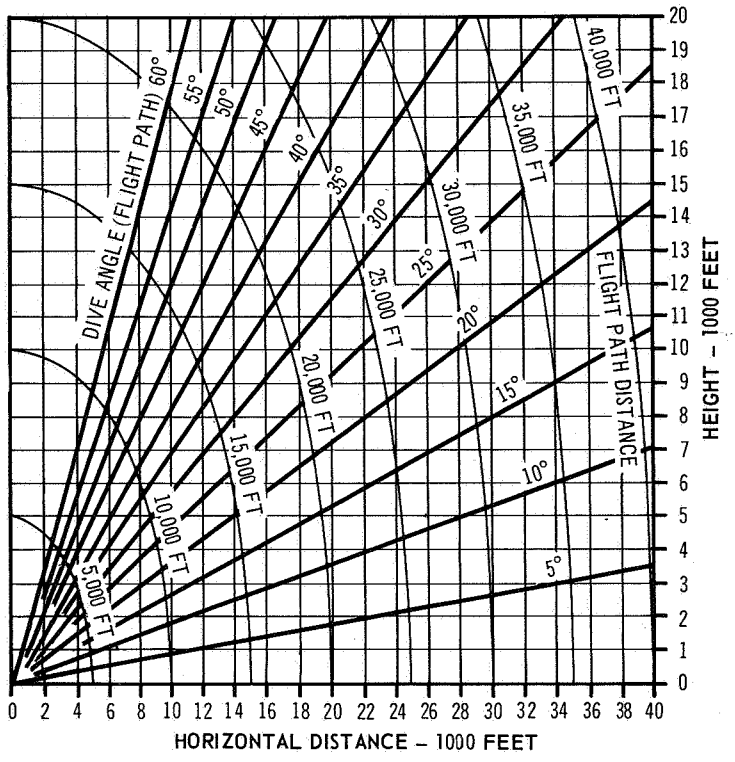
SPROT Mode

1. Command heading marker - CENTER

When target is within launch range -

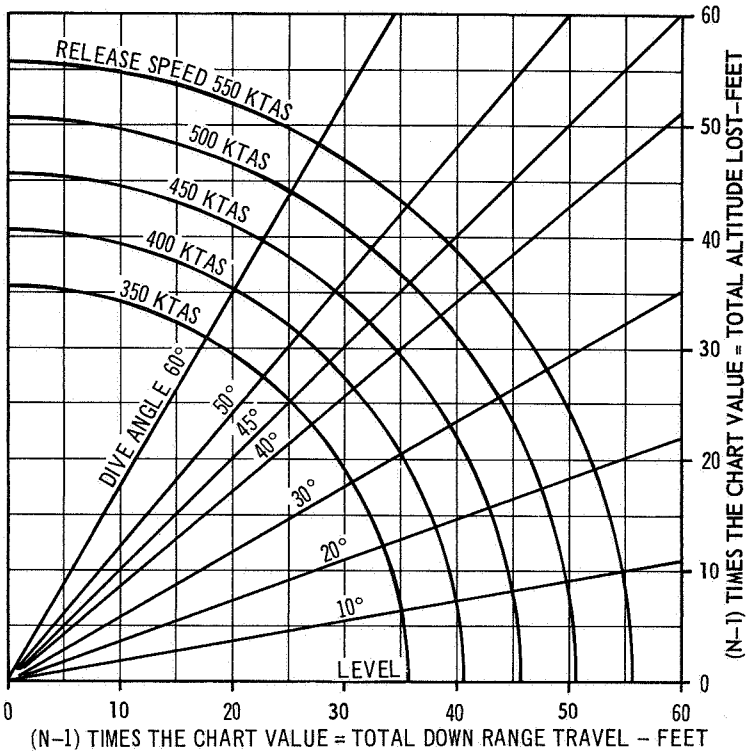
2. Weapon release button - ACTUATE

ENTRY HEIGHT



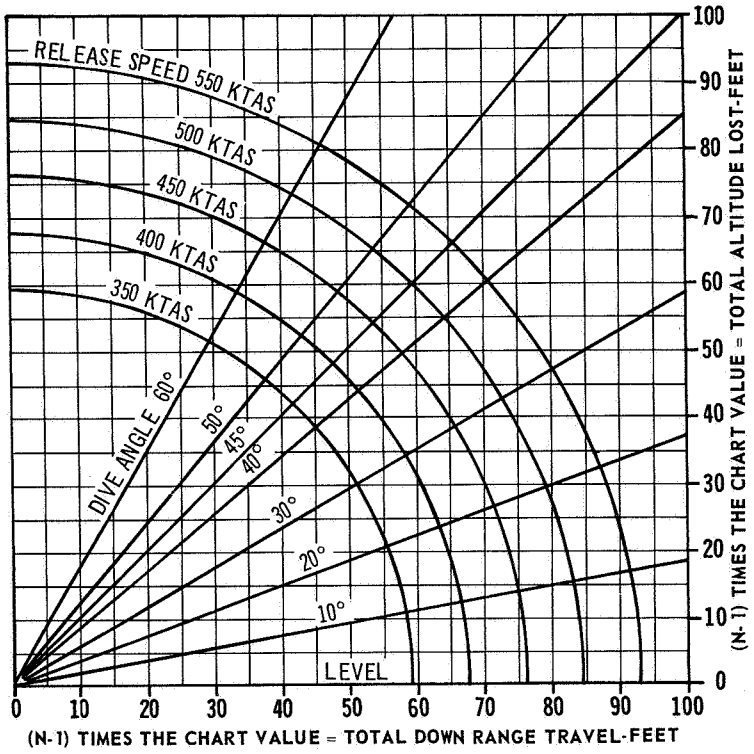
18AA–TAC–30–(3)

AIRCRAFT DOWN RANGE TRAVEL AND ALTITUDE LOSS FOR A RELEASE INTERVAL OF 0.06 SECOND

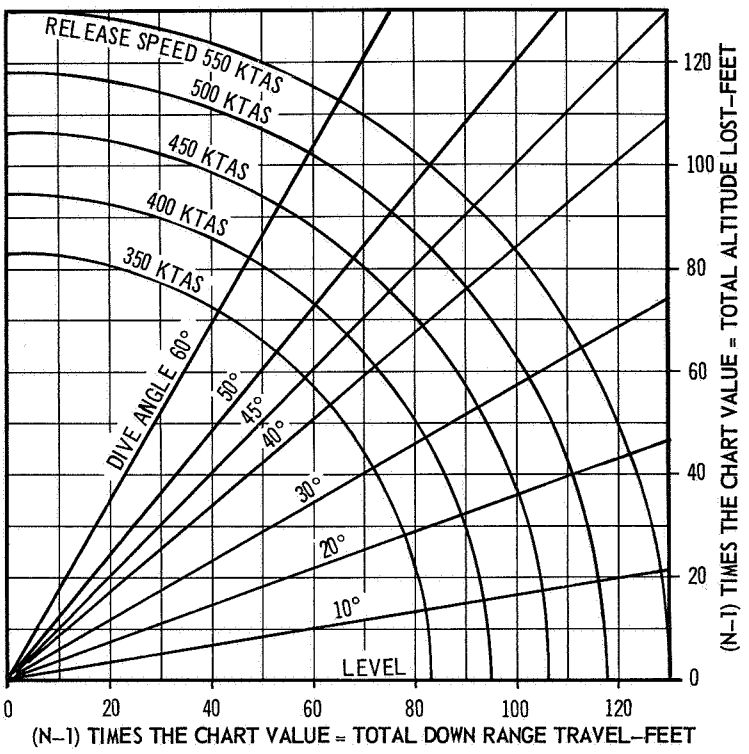


18AA–TAC–30–(4)

AIRCRAFT DOWN RANGE TRAVEL AND ALTITUDE LOSS FOR A RELEASE INTERVAL OF 0.10 SECOND



AIRCRAFT DOWN RANGE TRAVEL AND ALTITUDE LOSS FOR A RELEASE INTERVAL OF 0.14 SECOND



18AA–TAC–30–(6)

AIR-TO-AIR ATTACK

PREFLIGHT

WEAPONS

Refer to Exterior Inspection illustrations.

SMS BIT CHECK

1. Left DDI controls - SET
   a. Brightness selector - AUTO
   b. Brightness control - MIDRANGE
   c. Contrast control - MIDRANGE
2. Left DDI MENU - SELECT BIT
   a. BIT display on DDI with NOT READY indication for SMS.
   b. After initialization, SF TEST indicator for SMS.
   c. After self test, blank indication for SMS.
3. Left DDI - SELECT AUTO
   a. SMS - GO

SMS STORES CHECK

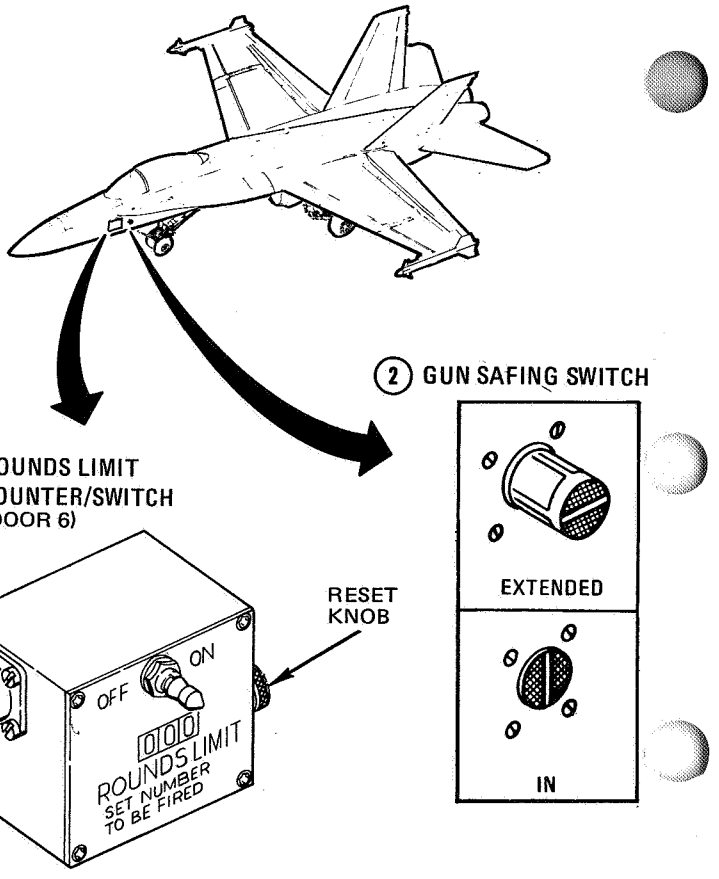
1. Left DDI - SELECT STORES
   a. Correct weapon load indications appear with no DEGD messages.

Exterior Inspection

M61A1 GUN

PREFLIGHT

1. Ammo loaded – TYPE, QUANTITY
2. Gun safing switch – EXTENDED
3. Rounds limit counter/switch – CHECK & SET (if applicable)



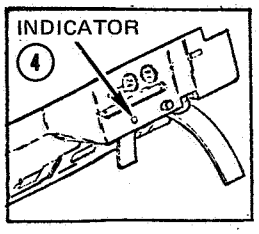
18AA–TAC–30–(8)

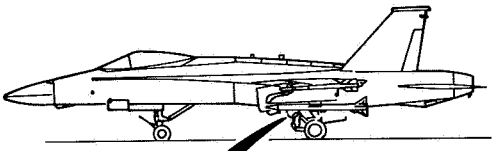
Exterior Inspection

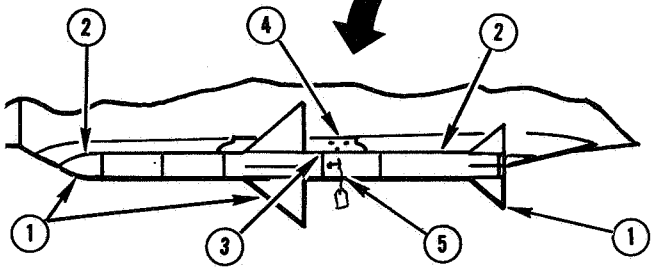
AIM-7F MISSILE

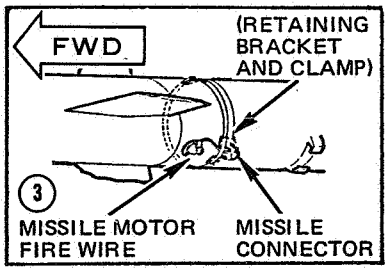
PREFLIGHT

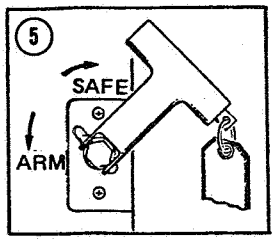
1. Radome, wings and fins – CLEAN and UNDAMAGED
2. Missile alignment - NOT RUBBING AIRCRAFT
3. Missile motor fire wire – INSTALLED
4. Launcher safety indicator – GREEN
5. Rocket motor safe/arm tool – INSTALLED (SAFE)











18AA–TAC–30–(9)

Exterior Inspection

AIM-9L MISSILE

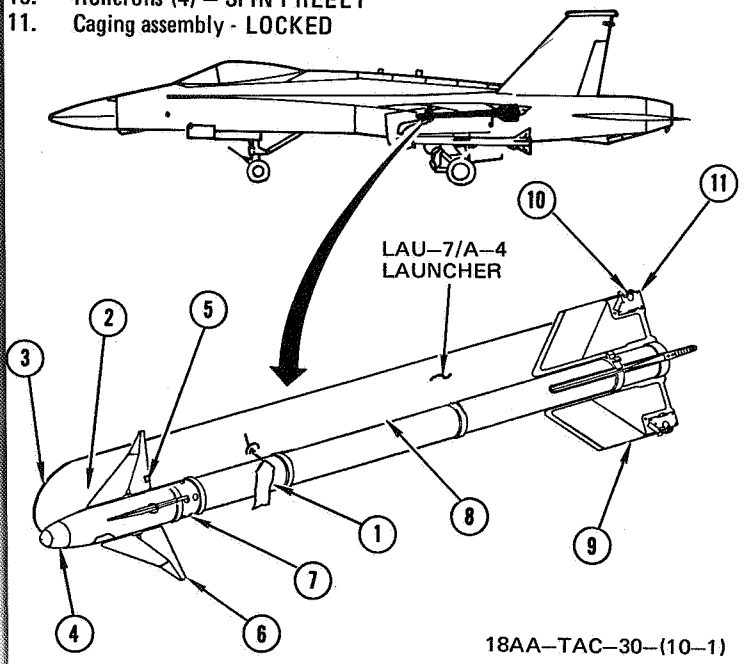
PREFLIGHT

1. Launcher safety pin – INSTALLED
2. Umbilical plug – CONNECTED TO LAUNCHER
3. Launcher nose fairing – SECURE & LATCHED
4. IR dome – NO CHIPS/CRACKS (replace cover)
5. Fin retaining springs – ENGAGED ON FINS
6. Fins (4) – SECURE
7. Target detector cover – INSTALLED
8. Missile – CHECK SECURE AND PROPERLY SEATED IN THE LAUNCHER DETENT LOCKING BLOCK

CAUTION

If missile is not properly seated in the launcher detent, the missile may slide off the rail during takeoff or landing.

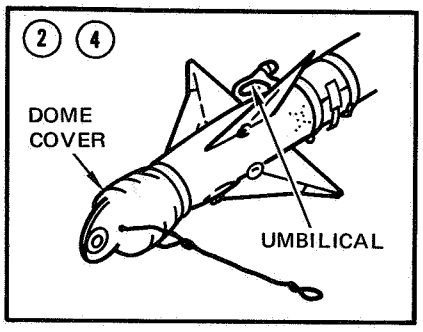
9. Rear wings (4) – SECURE
10. Rollerons (4) – SPIN FREELY
11. Caging assembly - LOCKED

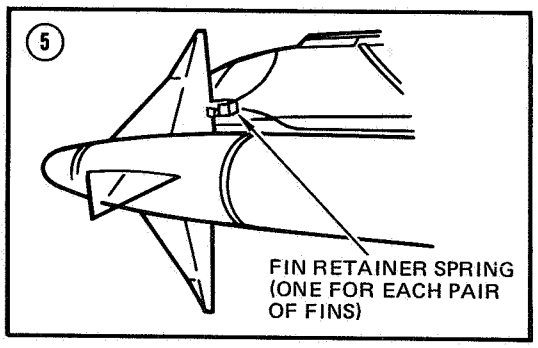


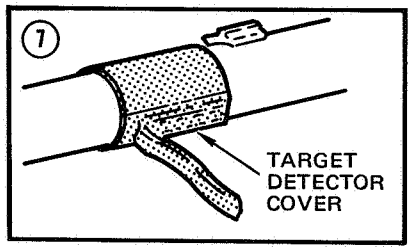
18AA–TAC–30–(10–1)

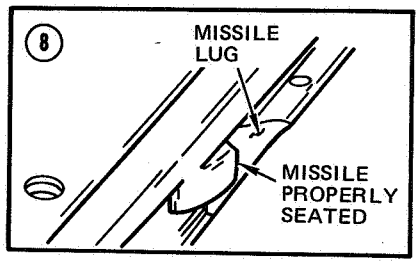
Exterior Inspection

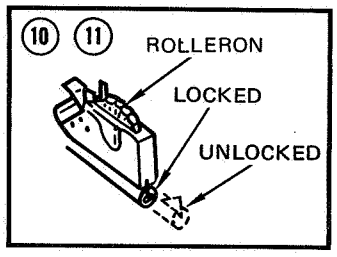
AIM-9L MISSILE











18AA–TAC–30–(10–2)

2. Radar power knob - OPR
   a. After 3 minutes plus 5 seconds, Sparrow missiles tune: check that no missile symbol SP legend is X'ed.
3. Radar power knob - AS REQUIRED

GUN AND MISSILE ARMING

1. Left engine - SHUTDOWN (gun arming); IDLE (missile arming)
   Right engine - IDLE
2. Master arm switch - SAFE
3. IR cool switch - OFF
4. Pilot signals the arming crew with a thumb-up and holds hands in view until the arming crew signals arming is complete.

INFLIGHT

BEFORE ATTACK

1. A/A master mode - SELECT
2. Radar power - OPR
3. Radar mode/parameters - AS DESIRED
4. SMS status - CHECK
   a. Sparrow missile - TUNED (SP)
   b. Sidewinder missiles - SW INDICATION
   c. Gun - ROUNDS REMAINING INDICATION
5. IR cool switch - NORM
6. Weapon audio volume control - AS DESIRED

SPARROW ATTACK

1. Weapon select switch - FORWARD (SP)
2. Master arm switch - ARM

3. SMS display - CHECK
   a. Priority Sparrow missile - SEL
   b. Master arm status - ARM
4. Radar - LOCK ON TARGET
5. SHOOT light/cue - ON (radar track)
6. Trigger - SQUEEZE (second detent)
7. Radar track - MAINTAIN UNTIL INTERCEPT
8. SMS display - CHECK
   a. Sparrow missile symbol - GONE
   b. Next Sparrow missile in sequence - SEL

To ripple launch two Sparrows -

9. Trigger - SQUEEZE, RELEASE, SQUEEZE AGAIN AND HOLD

SIDEWINDER ATTACK

1. Weapon select switch - DOWN (SW)
2. Master arm switch - ARM
3. SMS display - CHECK
   a. Priority Sidewinder missile - SEL
   b. Master arm status - ARM
4. Radar - LOCK ON TARGET.
5. Sidewinder seeker - ON TARGET
6. Cage/uncage button - ACTUATE (boresight lock-on only)
7. Chirp tone - ON
8. SHOOT light/cue - ON (radar track)
9. Trigger - SQUEEZE (second detent)
10. SMS display - CHECK
    a. Sidewinder missile symbol - GONE
    b. Next Sidewinder missile in sequence - SEL

GUN ATTACK

1. Weapon select switch - AFT (GUN)
2. Master arm switch - ARM
3. SMS display - CHECK
   a. Gun selected - ROUNDS REMAINING
   b. Master arm status - ARM
   c. Gun fire rate (HI/LO) - AS DESIRED
   d. DSTB option - AS DESIRED
4. Radar - LOCK ON TARGET
5. Gun or stadiametric reticle - ON TARGET
6. SHOOT light/cues - ON (radar track)
7. Trigger - SQUEEZE (second detent) AS REQUIRED
8. SMS display - CHECK
   a. Rounds remaining - COUNTS DOWN

AFTER ATTACK

1. Master arm switch - SAFE

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JETTISON PROCEDURES

SELECTIVE JETTISON

1. Selective jettison knob - AS REQUIRED
   a. Station 4 missile - L FUS MSL
   b. Station 6 missile - R FUS MSL
   c. Station 2, 3, 5, 7, and/or 8 stores - STORES
   d. Station 2, 3, 5, 7, and/or 8 racks/launchers and stores - RACK/LCHR
2. (Stations 2, 3, 5, 7, and/or 8) Station jettison select buttons - PRESS (AS REQUIRED)
   a. Station 2 - PRESS LO
   b. Station 3 - PRESS LI
   c. Station 5- PRESS CTR
   d. Station 7 - PRESS RI
   e. Station 8 - PRESS RO
3. Master arm switch - ARM
4. Selective jettison pushbutton - PRESS

If stores fail to jettison -

5. Auxiliary release switch - ENABLE
6. Selective jettison pushbutton - PRESS

EMERGENCY JETTISON (STATIONS 2, 3, 5, 7, and 8)

1. Emergency jettison button - PRESS